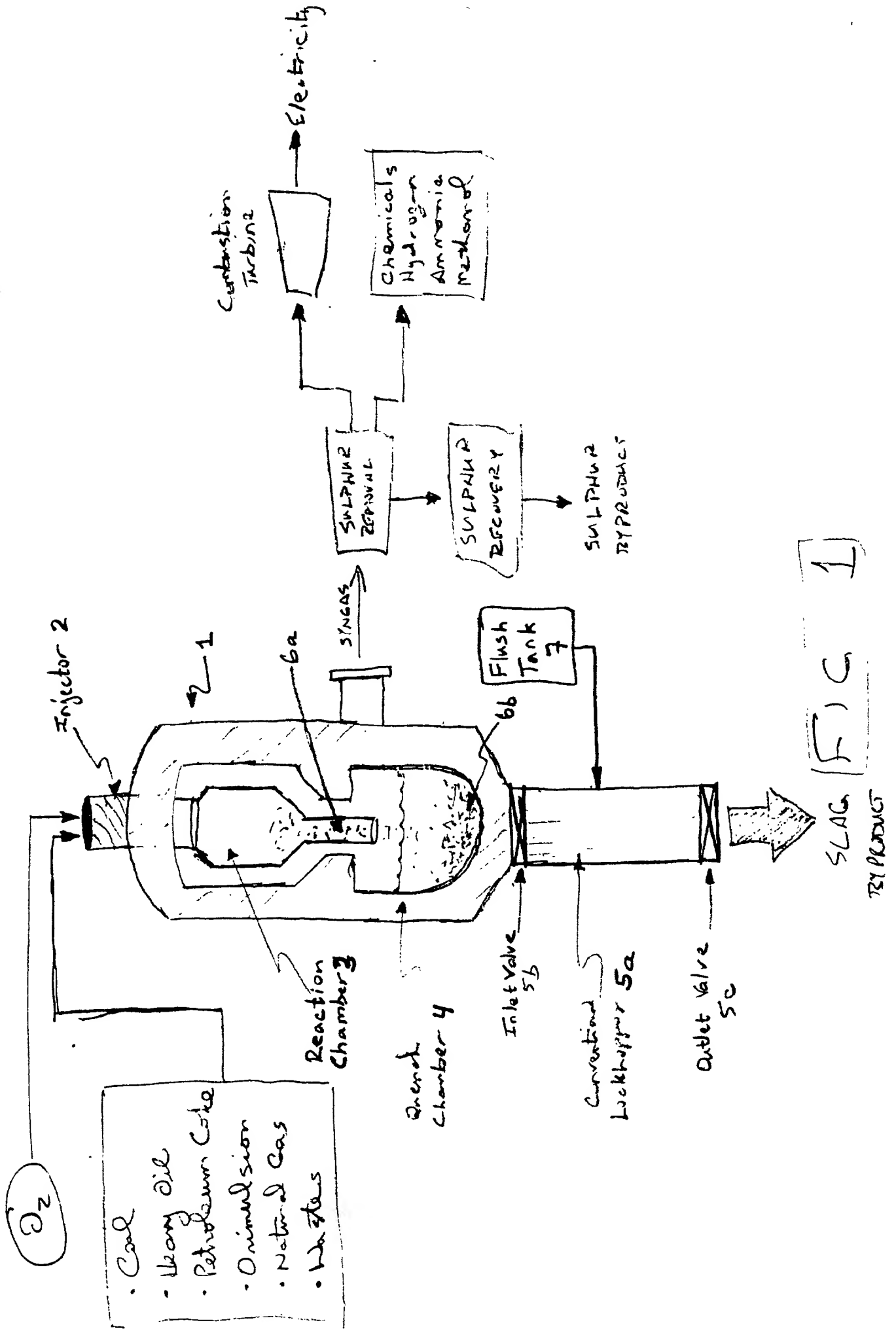


Feedstock

Gasification

Gas
clean-up

End
Products



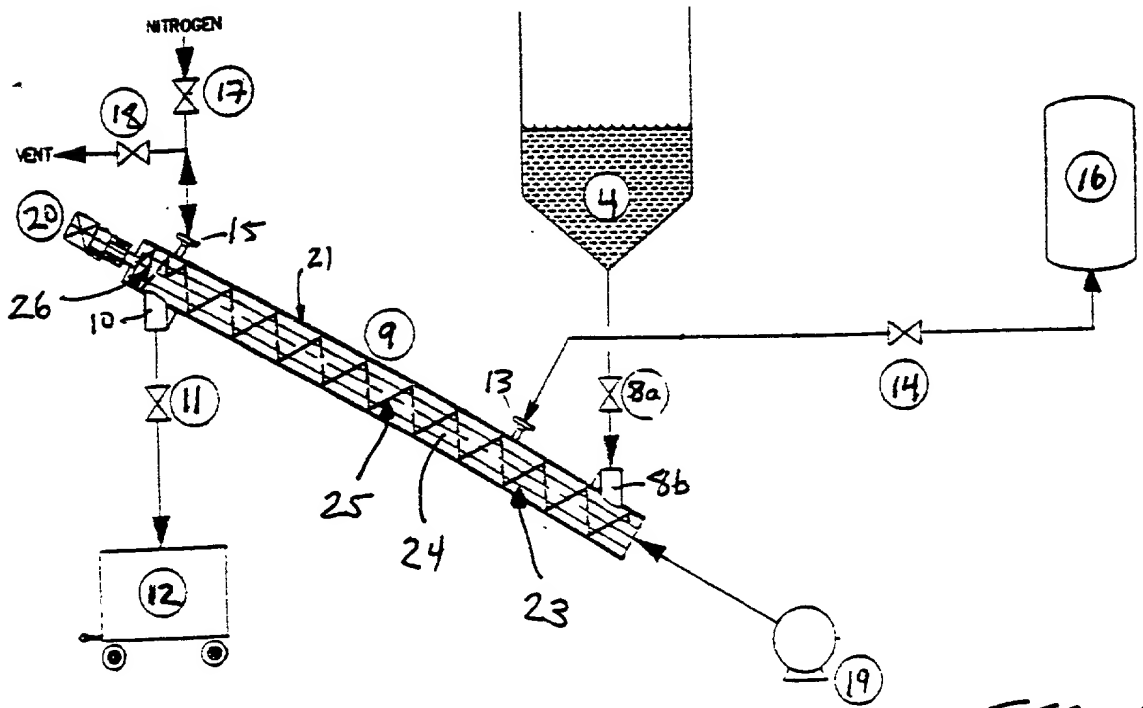


FIG. 2a

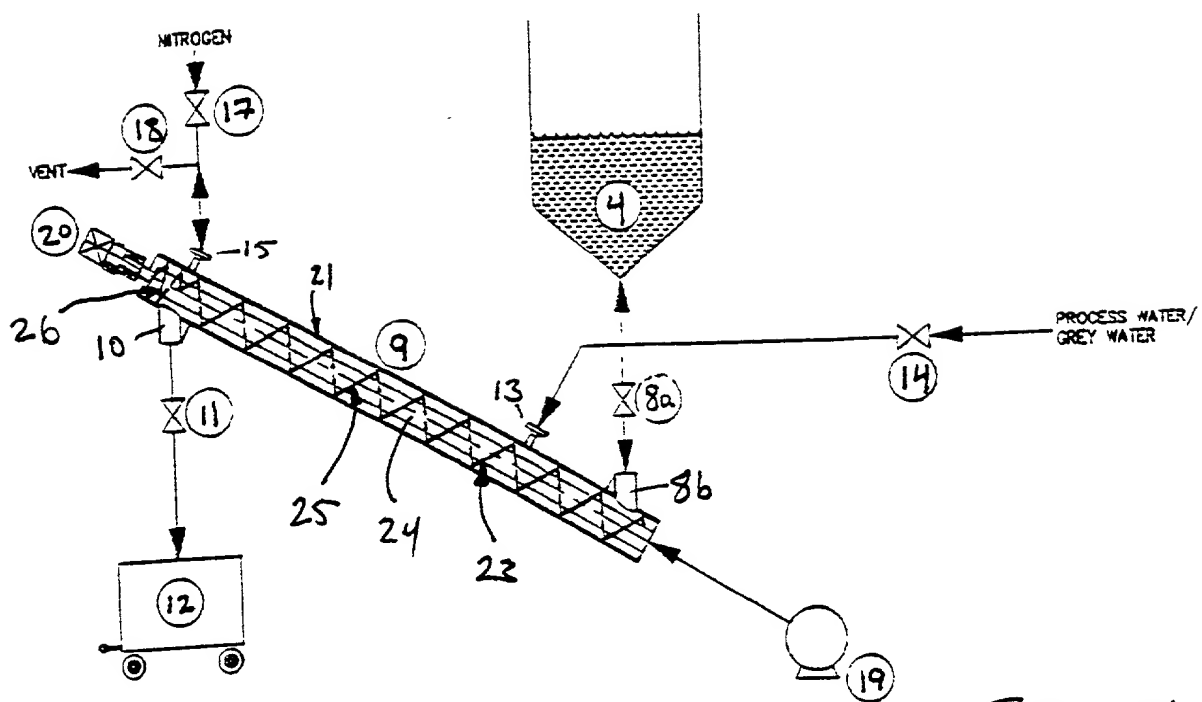


FIG. 2b

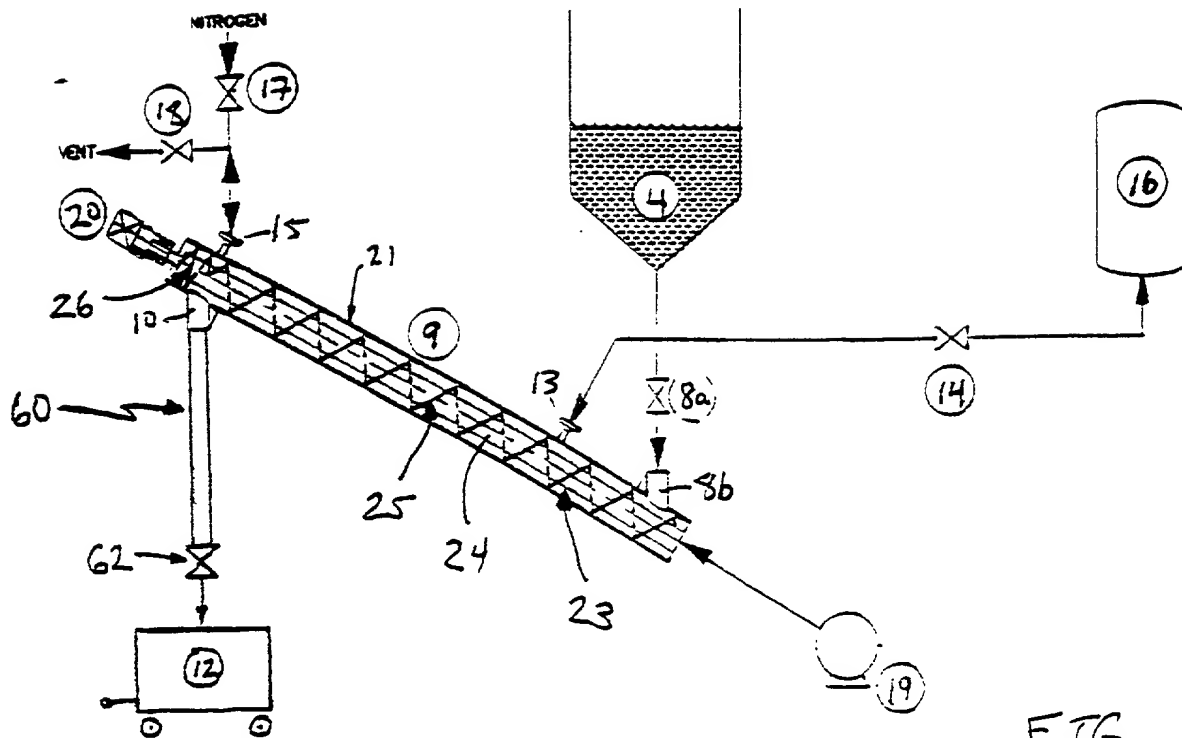


FIG. 2c

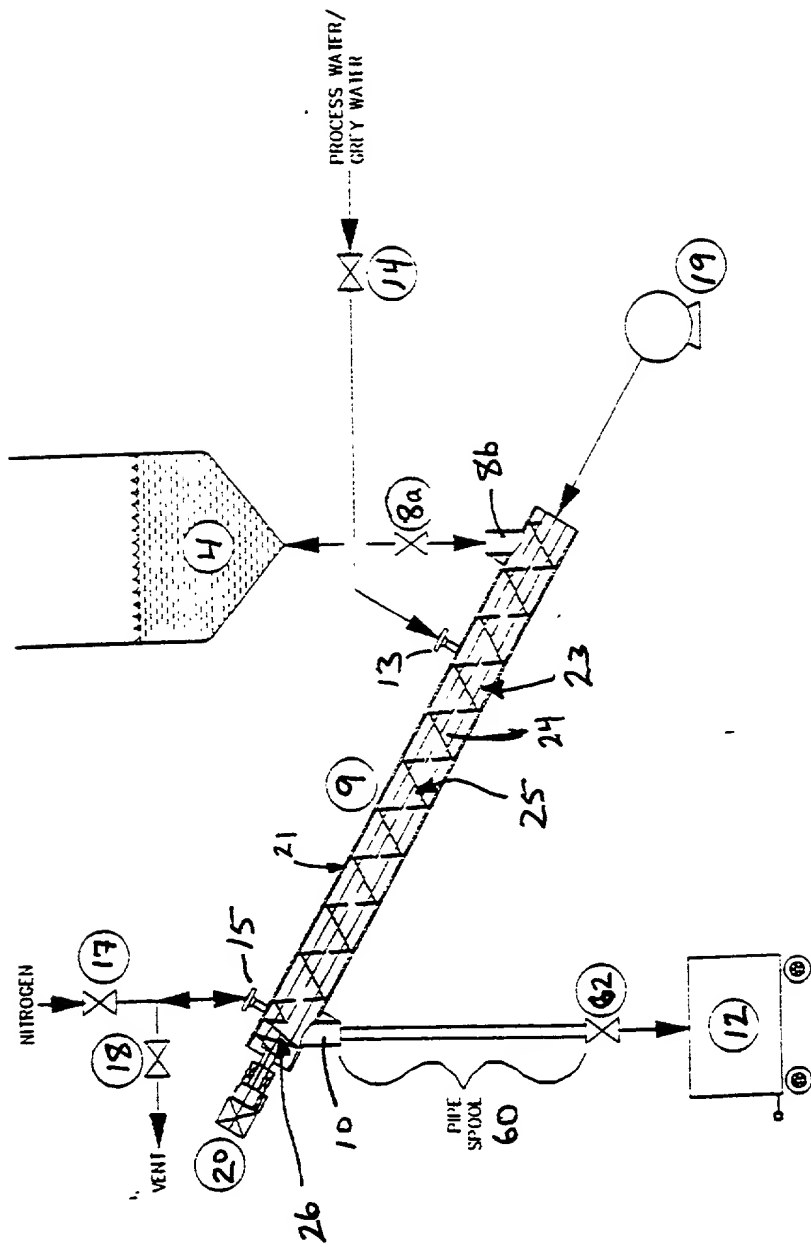


FIG. 2d

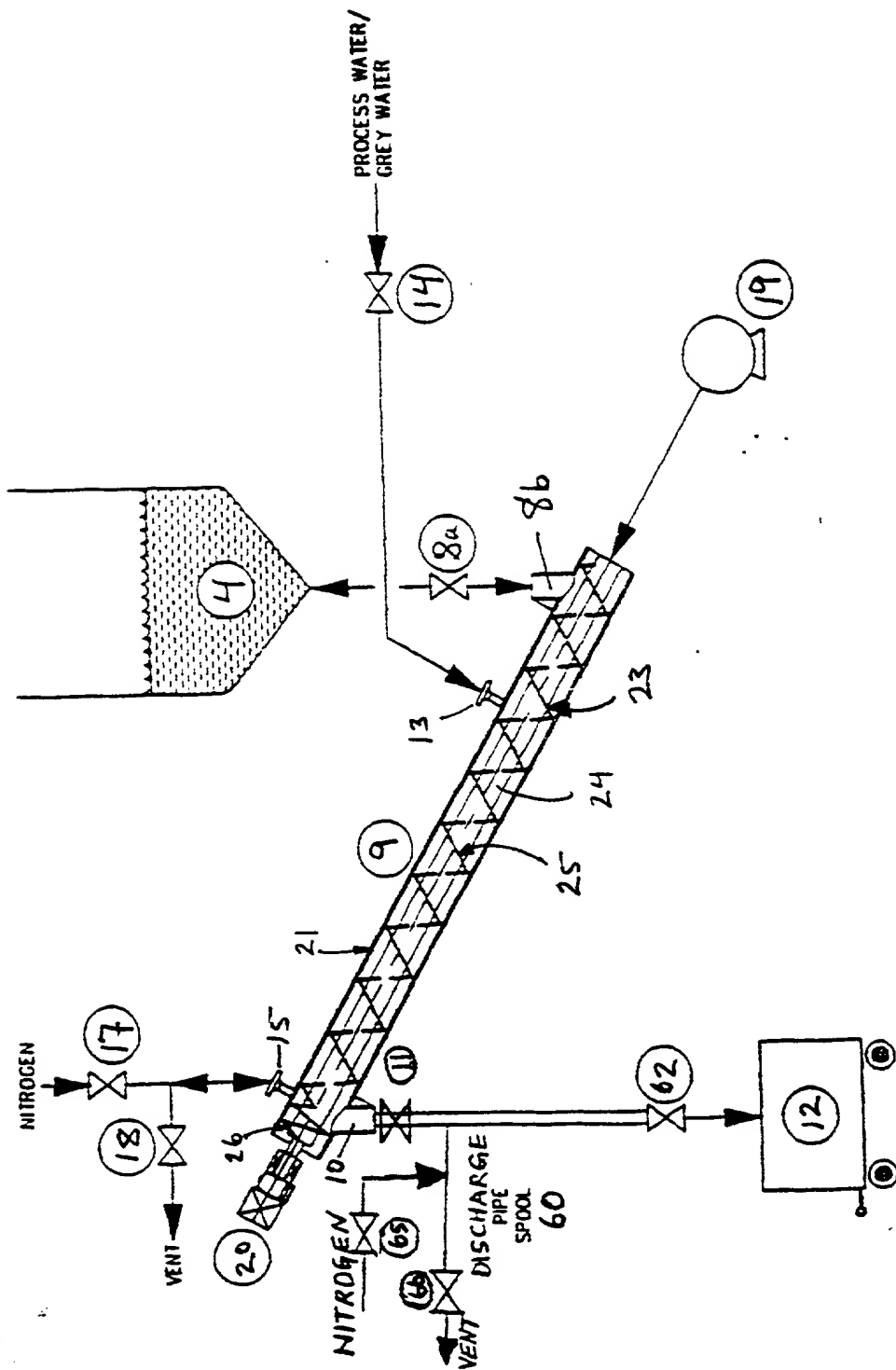


FIG. 2e

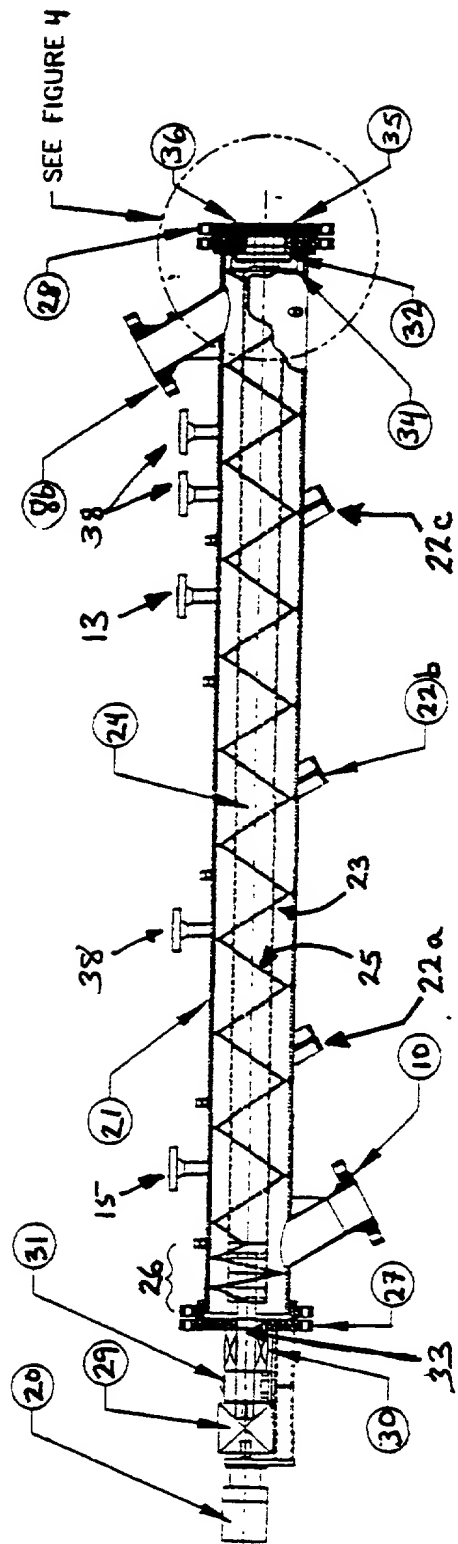


FIG. 3a

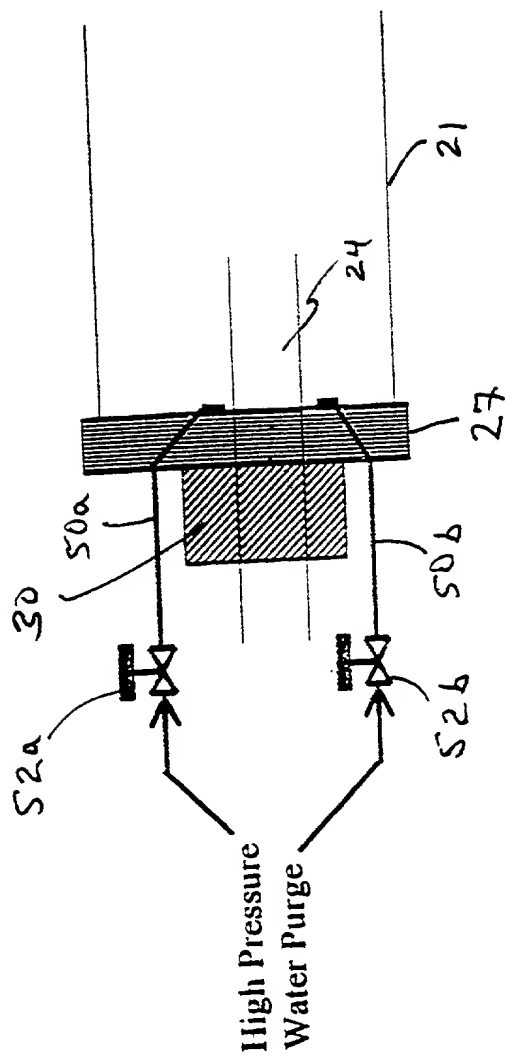


FIG. 3b

FIG. 4 is a cross-sectional view of the device in a first position, showing the internal components and the external structure. The device is shown in a cross-sectional view, with the internal components labeled with reference numerals. The external structure is shown in a cross-sectional view, with the internal components labeled with reference numerals. The device is shown in a cross-sectional view, with the internal components labeled with reference numerals. The external structure is shown in a cross-sectional view, with the internal components labeled with reference numerals.

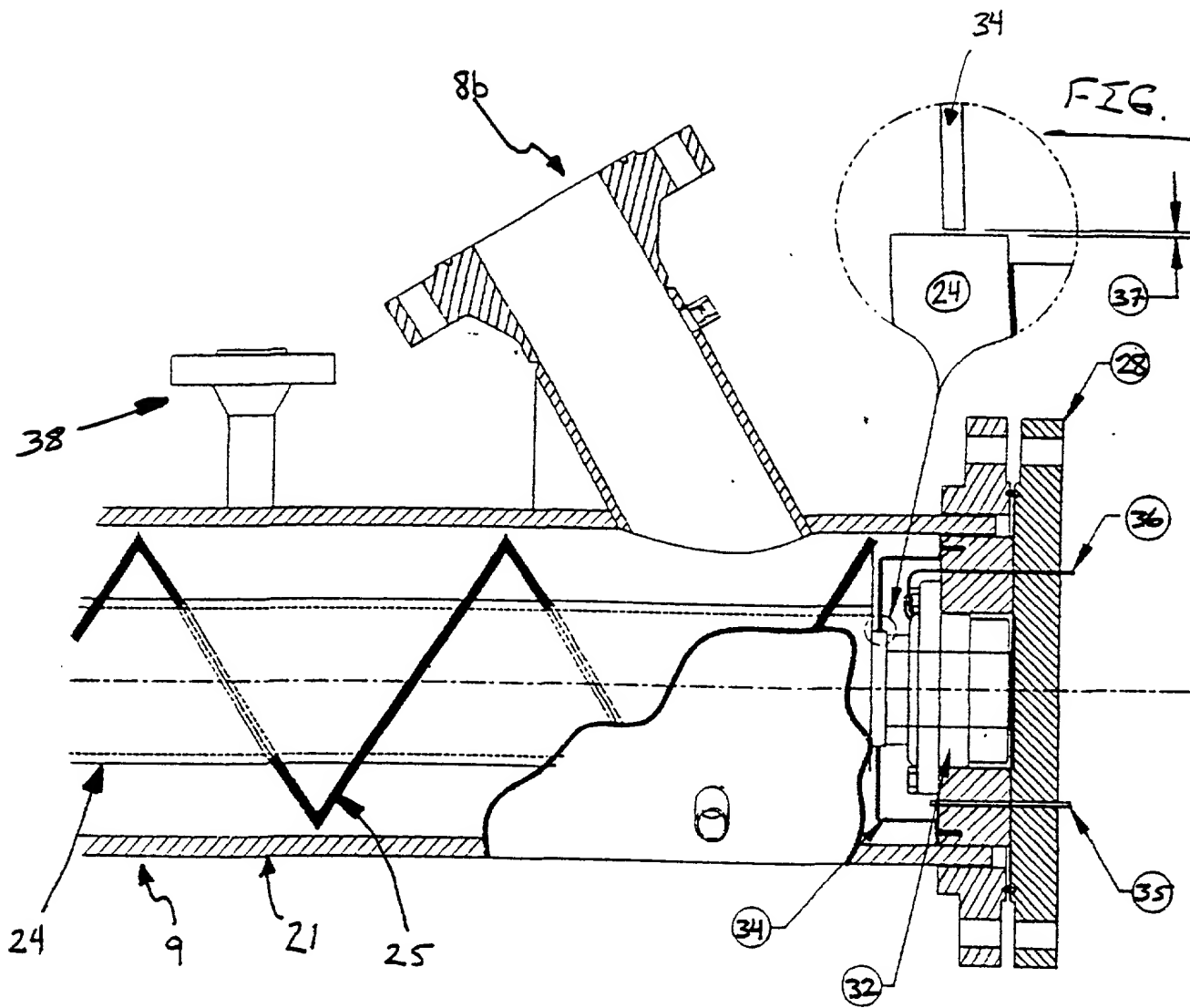


FIG. 4

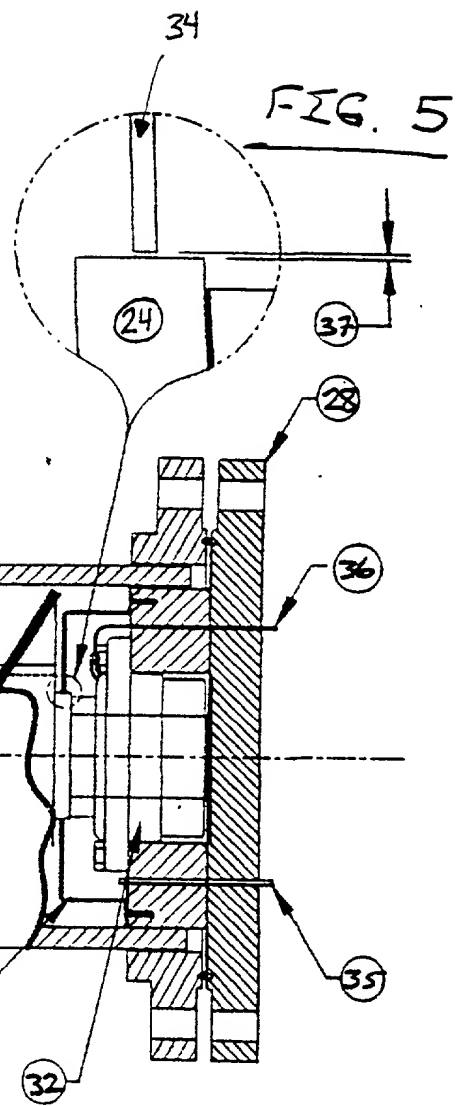
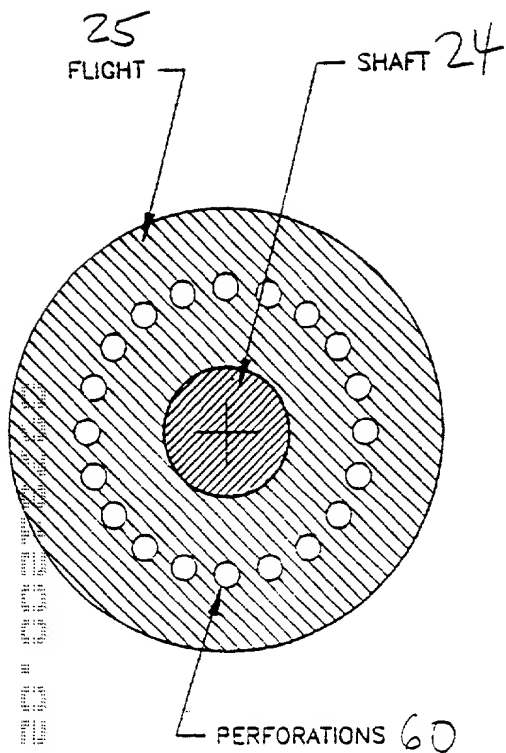
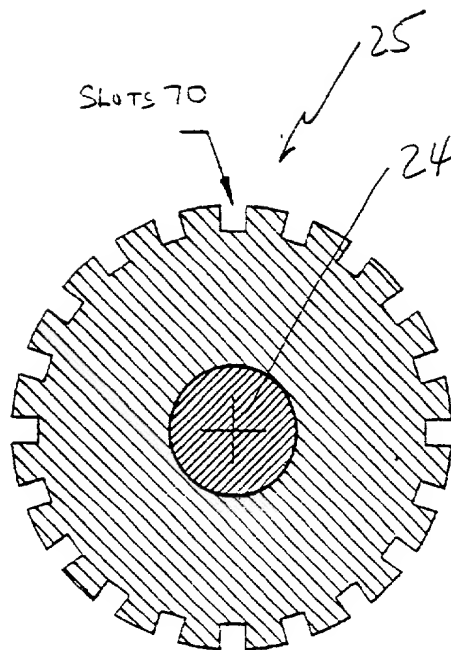


FIG. 5



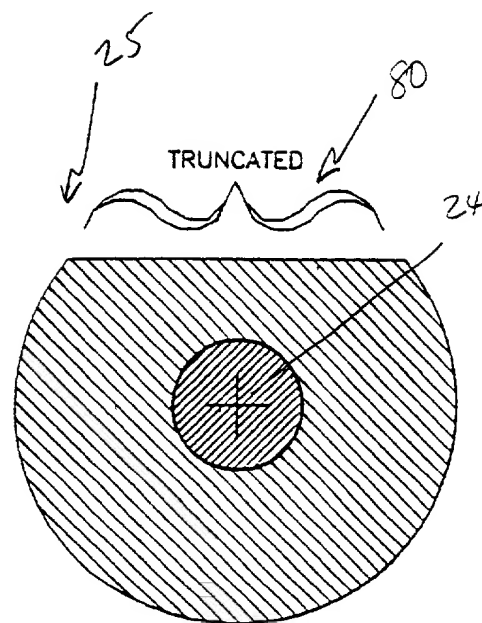
PERFORATED
FLIGHT

FIG. 6



SLOTTED
FLIGHT

FIG. 7



PARTIALLY TRUNCATED
FLIGHT

FIG. 8

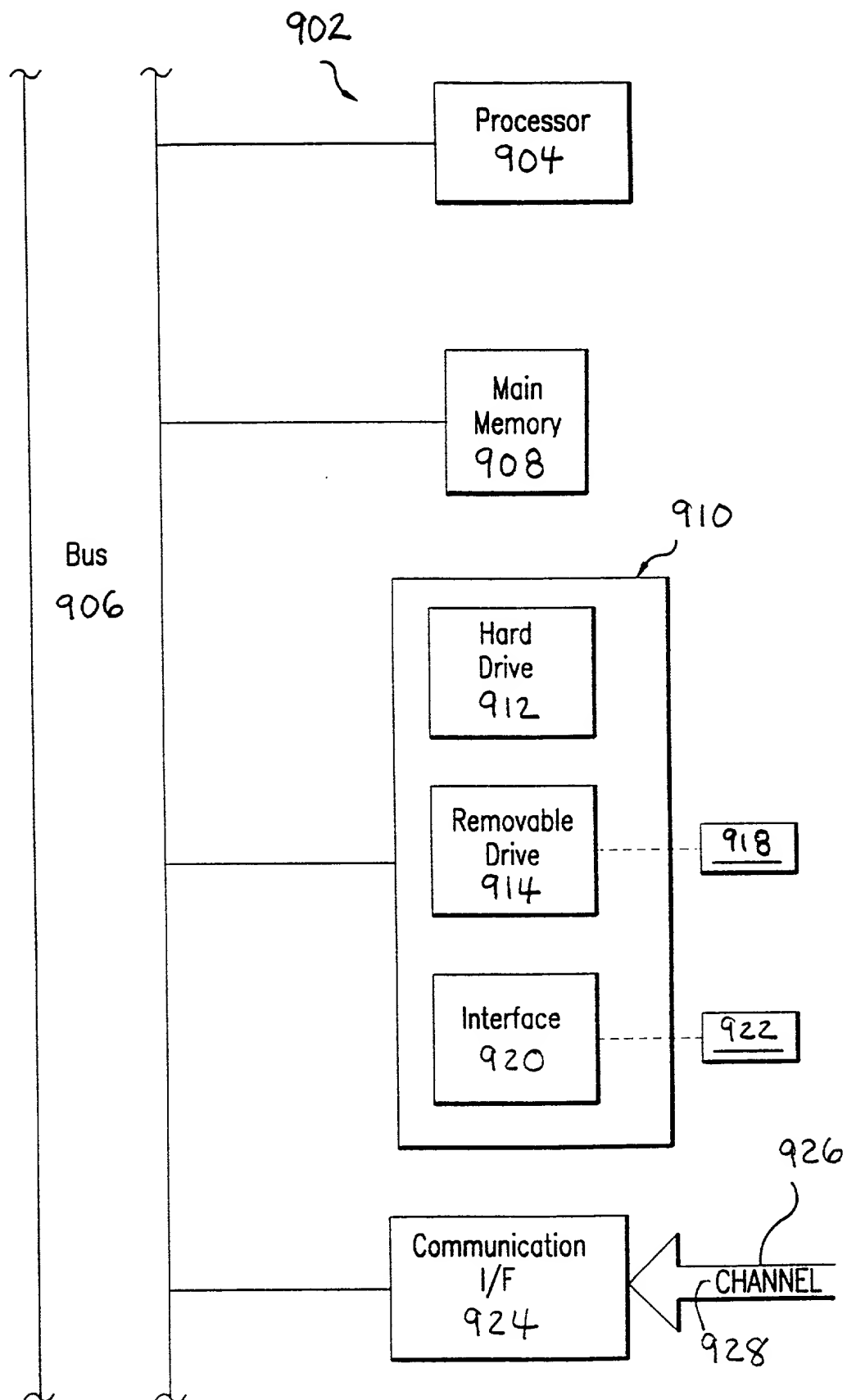


FIG. 9